

1 **3.3.16 UTILITIES AND SERVICE SYSTEMS**

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1

2 Environmental Setting

3 The proposed Project is located in the San Francisco Bay Area, a region that is largely
4 urban. There are a number of facilities in the Bay Area that can provide necessary
5 utilities and services to the proposed Project. With respect to utilities and services, the
6 primary needs of this Project will be to recycle or dispose of reinforced concrete, treated
7 wood, other building materials (some of which may be hazardous materials), and solid
8 wastes associated with the removal of the Marine Oil Terminal (MOT).

9 There are several solid waste facilities in the greater Bay Area that can accept these
10 materials for recycling and/or disposal. Some specialized facilities for the treatment or
11 disposal of certain hazardous wastes may lie outside the Bay Area, but they can be
12 accessed via the network of interstate highways that serve the region.

13 As noted in Section 2.3.5, Contractors Shore Base, the proposed Project will need a
14 shore base facility to handle materials from the MOT and transfer them to recycling and
15 disposal sites. A key aspect of the environmental setting is the large number of highly
16 developed industrial sites along the shore of San Francisco Bay. By using existing
17 facilities, the proposed Project will not need to develop a new shore base facility. If the
18 processing of these materials requires more electrical power than anticipated by the
19 proponent, then the existing shore base facility should be able to provide power from
20 the local electric utility, rather than adding a diesel generator to the proposed
21 equipment.

22 In addition to a shore base facility, the proposed Project may need the services of a
23 wastewater treatment plant. As noted in Section 3.3.7, there are seven pipelines or
24 conduits ranging in diameter from 3 to 24 inches that formerly serviced the MOT, five of
25 which were used for hydrocarbon transfer. Mitigation measure MM Bio-4e calls for the
26 careful inspection of each end of these pipelines prior to the removal of either the riser
27 section or the shore-side landfall segment of each. The inner walls of one or more of

the pipelines may have been insufficiently cleaned when previously laid up with sea water, so that deposits of hydrocarbons or other potentially hazardous substances have since leached into the water within those pipes. If the sea water currently contained in any of the MOT pipelines is found to be contaminated at a level requiring flushing or cleaning, then a wastewater treatment facility will be needed to receive the wastewater thus produced. Because the region is urbanized, there are several wastewater treatment plants within a reasonable distance of the proposed Project. The two plants closest to the MOT are the West County Wastewater District plant at 2377 Garden Tract Road, Richmond; and the Vallejo plant at 450 Ryder Street, Vallejo. When the shore base is chosen, other plants may be closer to that base and therefore more advantageous.

Regulatory Setting

Federal

The requirement to properly dispose or recycle the materials produced by the demolition of the MOT structure is not explicit in Federal laws and regulations. At the Federal level, the applicable laws and regulations are intended to prevent improper disposal by, for example, prohibiting the discharge of fill material to navigable waters (section 404 of the Clean Water Act; section 10 of the Rivers and Harbors Act) and by establishing criteria for the proper operation of disposal sites on land (Resource Conservation and Recovery Act, 40 CFR sections 257 and 258).

With regard to the possible need to remove water from the MOT's buried pipelines due to contamination, the Clean Water Act and related regulations (40 CFR sections 100 – 149 et seq.) clearly prohibit the discharge of polluted waters (as defined) directly to waters of the State. This Act also sets standards for discharge and enables States to establish criteria by which waters will be treated to meet these requirements. Furthermore, the Act establishes regulations (40 CFR 403) that require pretreatment of wastewater from a specific discharger, prior to the discharge of that wastewater to a publicly owned treatment works.

The Clean Water Act and related regulations also impose certain requirements on the shore base facility, related to storm water pollution prevention. The 1987 amendments to the CWA added section 402(p) which establishes a framework for regulating municipal and industrial storm water discharges under the National Pollutant Discharge Elimination System. Based on its configuration, the shore base facility may be regulated either as an industrial site or as a construction site. In either case, the

1 Regional Water Quality Control Board will require that storm water leaving the site be
2 monitored to assure that it does not contain pollution that exceeds regulatory limits.

3 State

4 State law, specifically Assembly Bill 939 of 1989 and supplementary legislation,
5 required that local California jurisdictions achieve the goal of diverting at least
6 50 percent of their solid wastes from landfill disposal by the year 2000. The penalty for
7 failure is a fine of up to \$10,000 per day. This legislation and related State regulations
8 (California Code of Regulations Title 14, sections 18700 – 18814) have given rise to
9 many local ordinances, regulations, programs and systems to divert solid wastes by a
10 variety of means.

11 Local

12 This project will occur in several local jurisdictions:

- 13 • The pipelines from the MOT come on shore in the city of Hercules;
- 14 • The MOT is located in unincorporated Contra Costa County;
- 15 • The shore base for handling, processing and transfer of MOT materials has not
16 yet been selected, but potential locations have been identified in Alameda,
17 Contra Costa, Solano, Napa and Marin Counties; and
- 18 • The disposal and recycling sites for final disposition of materials have not yet
19 been selected, but landfill facilities have been identified by the proponent in
20 Alameda and Contra Costa Counties. In addition, landfills in Marin and Solano
21 Counties may be used if the selected demolition contractor so chooses; and
22 other recycling facilities such as scrap metal processing yards exist in most of the
23 nine Bay Area counties.

24 *Wastewater Treatment*

25 Coscol has proposed to abandon the offshore pipelines in place after cutting off their
26 ends and installing plugs. Most of these pipes were used for hydrocarbon transfer.
27 After operations ceased at the MOT, the pipes were cleaned, flushed and laid up with
28 sea water. Additional cleaning of the pipes, and / or replacement of the sea water that
29 they contain, has not been proposed.

30 As noted above, if the buried pipelines associated with the MOT must be flushed or
31 cleaned, a wastewater treatment facility will be needed to receive any wastewater thus

produced. Coscol has not yet identified the shore base location¹ for the work, and that location may strongly influence the choice of treatment facility. Regardless of location, if treatment is necessary the proposed Project will need to submit an analysis of the water to the treatment plant to determine if the water may be conveyed directly to the plant or if pretreatment is required by local pretreatment ordinances and standards applicable to the receiving wastewater treatment plant.

Solid Waste and Recycling

As noted above, State requirements for waste diversion have prompted local jurisdictions to institute various programs, incentives and regulations to promote or require the diversion of wastes. These efforts are not fully consistent from jurisdiction to jurisdiction in the Bay Area. For construction and demolition (C&D) wastes, some jurisdictions have taken a passive approach and others have developed ordinances that may require a builder to take steps which include the following:

- Prepare a Waste Management Plan that demonstrates how the project will recycle at least 50 percent of the waste that it generates;
- Identify the processors that will be used for disposal or recycling (in some jurisdictions, only locally certified processors may be used);
- Submit a monetary deposit which will be returned if the project adheres to its Waste Management Plan;
- Compile documentation, such as receipts, to confirm that materials were disposed or recycled; and
- Prepare a report summarizing actual volumes of materials disposed and recycled.

Details, including the size of the deposit and the extent of verification by the local jurisdiction, vary from place to place.

Contra Costa County enacted its C&D ordinance in 2004. This ordinance added Chapter 418-14 to the County Code, requiring owners of all construction or demolition projects that are 5,000 square feet in size or greater to demonstrate that at least 50 percent of the construction and demolition debris generated on the jobsite are reused, recycled or otherwise diverted. The ordinance contains all of the components

¹ Coscol has indicated that the shore base will be an existing facility and a number of contractors have expressed interest in performing the deconstruction work. These contractors have existing operations located in Vallejo (Mare Island), Rio Vista, Richmond, San Rafael, Oakland, and Alameda.

1 listed above, except that it does not require a deposit. In addressing failure to comply,
2 the ordinance references the Enforcement section of the County Code. Also, the
3 County's instructions for compliance state that failure to comply will result in a delay in
4 permit issuance, a hold on the final inspection of the project, and/or a monetary fine.
5 This ordinance is applicable to the deconstruction of the MOT.

6 The city of Hercules has not enacted a C&D ordinance or other specific requirements.
7 Therefore there are no specific local recycling requirements for the work that will take
8 place within Hercules, which includes a vault and the onshore pipelines as well as that
9 portion of the underwater pipelines between the shoreline and the city limits.

10 **Impact Analysis and Mitigation**

11 As noted in Section 2, Project Description, the proposed project will produce
12 approximately 5,800 tons of reinforced concrete, 178 treated wood piles, and various
13 other waste materials, scrap metals and used equipment, all of which must be recycled
14 or disposed. Also, in the event that the water contained in the abandoned pipelines is
15 found to contain substances in concentrations that exceed regulatory thresholds, the
16 pipelines may need to be flushed and/or cleaned, producing wastewater that may
17 require treatment prior to discharge.

18 The concrete, metals and other materials produced by the MOT demolition work will be
19 brought by barge to the demolition contractor's shore base facility for further processing
20 and loadout, for recycling or disposal elsewhere. The locations of the shore base and
21 the disposal and recycling sites have not been determined, but Coscol has identified a
22 number of potential shore base locations and several disposal sites serving the region.

23 Impact Discussion

- 24 (a) The proposed Project is not anticipated to produce wastewater requiring
25 pretreatment or other special handling. Based on the project description, one
26 source of wastewater would be any water captured during sawcutting of the
27 concrete structure. Such water typically contains high levels of suspended
28 solids, but it is not likely to have contacted substances that could necessitate
29 wastewater pretreatment. Also, there is the possibility of contaminated sea water
30 being found within the pipelines that formerly conveyed petroleum products
31 between the refinery and the MOT. If any pipelines must be flushed and/or
32 cleaned, it would be Coscol's responsibility to comply with applicable laws and
33 regulations to identify a wastewater treatment plant that can receive this water,
34 and to provide any pretreatment required by that plant. Compliance with

applicable laws and regulations would prevent a conflict with wastewater treatment requirements of the Regional Water Quality Control Board. (No Impact)

- (b, e) The proposed Project would not produce wastewater with characteristics that require the construction of new water or wastewater treatment facilities or expansion of existing facilities. The water that would be required for concrete cutting and other demolition work would be readily available from existing domestic water supplies. The nature of the proposed Project (structural demolition and salvage) and its short duration would limit the quantities of wastewater that would be produced.

However, if the MOT pipelines must be flushed and/or cleaned, the quantity and/or quality of this wastewater could disrupt operations at a small wastewater treatment facility, if rapidly discharged. For example, the nearby Pinole/Hercules Water Pollution Control Plant has a capacity of 4.06 million gallons per day (MGD) and averages 3.5 MGD of actual flow. The addition of the volume of the largest MOT pipeline (0.16 million gallons) in a few hours' time could disrupt flows within the plant. The presence of hydrocarbons or other contaminants that exceed local pretreatment standards could also upset biological processes within the plant.

A worst-case scenario would involve the largest MOT pipeline. Pitting of the inner wall of this pipe, and subsequent deposition of high-melting-point petroleum compounds such as paraffin, may have trapped hydrocarbon deposits that were not removed when the pipe was previously pigged and flushed. These hydrocarbons may be found when the two ends of this pipe are examined as required by **MM-BIO-4e**. In a worst-case scenario, these compounds may be so abundant that cleaning and flushing of the entire pipe is deemed necessary.

Successful cleaning of this pipe could require flushing with water at high temperature, adding surfactants to assist in dislodging and conveying deposits, followed by a high-temperature rinse. The length of the pipe is such that the cleaning water may need to be heated and circulated repeatedly, in order to achieve sufficiently high temperatures throughout the pipe. It will also be important to bleed all air from the pipe as flushing begins, so that all walls of the pipe are contacted by wash and rinse water.

One means of accomplishing this, while minimizing impacts on shore, would be to use a tank barge for flush-water supply and wastewater capture, and a propane or LP gas fired heater at the MOT. One or more of the smaller pipes would be used as return lines to the barge and heater. At the onshore vault, a connection would be made from the 24-inch pipe to the selected return line(s). Heated water, with any necessary additives, would be pumped into the 24-inch pipe at the MOT. The smaller line(s) would return water to the heating unit, and that water would be circulated until the necessary temperature was reached at

the shore end of the 24-inch line. At the conclusion of the cleaning step, the tank barge could furnish additional clean water for a final flush and sampling.

This scenario has the potential to produce wastewater in a volume approximately three times the volume of the 24-inch pipe, or between 400,000 and 500,000 gallons. Typical tank barge sizes are 10,000 to 30,000 barrels, or between 420,000 and 1,260,000 gallons. One large or two small barges would have adequate capacity to supply water and to hold wastewater.

Impact UTIL-1: Potential Impacts to wastewater treatment facilities.

If contaminated water is found in the MOT pipelines, the quantity and/or quality of this wastewater may be sufficient to disrupt operations at a wastewater treatment facility. (Potentially Significant, Class II)

Mitigation Measure for Impact UTIL-1:

MM UTIL-1. Pretreatment, Discharge Planning, and Consultation. If contamination is found in an MOT pipeline to an extent that necessitates pipe cleaning, a cleaning method that complies with applicable requirements, and a treatment plant with capacity to receive and treat this water, shall be identified. The treatment plant operator shall be consulted, and the quantity and constituents of this water shall be determined in sufficient detail for the treatment plant to stipulate any necessary requirements for pretreatment and/or restriction of the rate of discharge to that plant.

Rationale for Mitigation

Advance consultation with the wastewater treatment plant operator would enable Coscol to obtain the necessary resources to properly dispose of contaminated water without exceeding the capacity of local wastewater treatment facilities. For example, in the worst-case scenario described above, a barge holding wastewater could tie up at a convenient pier and serve as a storage tank, feeding wastewater through a temporary pretreatment system similar to those used when leaking underground storage tank sites are remediated. Application of this mitigation measure would reduce this impact to less than significant.

(c) The intended timing of this project, its location, and the nature of the work confine the need for storm water drainage facilities to the following: (1) temporary measures that may be needed at the shore base facility to protect the quality of storm water runoff while the shore base is handling and processing materials from this project, and (2) temporary measures that may be needed at the

onshore vault and pipe area to protect the quality of storm water runoff while work takes place at that location. Such measures, commonly known as storm water Best Management Practices (BMPs), typically consist of the use of hay bales, straw wattles, covers such as tarps, and other portable, temporary devices to prevent soil erosion and limit the contact of project materials by storm water. These measures, and the basis for choosing them appropriately, are more fully described in The Construction Site Best Management Practices (BMPs) Manual published by the California Department of Transportation (Caltrans 2003). The configuration of BMPs at the shore base facility cannot be determined because that facility has not yet been designated. However, BMPs in this setting are typically small scale and temporary, and they are expected to take place at locations that are not sensitive habitats and would be a less than significant impact. (Class III)

(d) The proposed demolition methods would rely on mechanical devices that require a relatively small amount of water to operate. If water is used for dust control at the shore base facility, the magnitude of this use would be typical of a commercial construction project and would not require development of new water resources. This Project would not require a water supply of the magnitude that would necessitate new or expanded water supply resources or entitlements. (No Impact)

(f) The proposed Project's solid waste disposal needs can be separated into four categories:

- Recycling of reinforced concrete and disposal of treated wood, expected to be the two primary constituents of materials removed from the MOT;
- Salvage of reusable equipment and non-hazardous scrap metal from structures and equipment installed on the MOT;
- Miscellaneous discarded materials typical of a construction or demolition project: cardboard boxes, crating, stretch wrap, and other packaging; empty containers that originally held lubricants, spray paint, or other consumable materials; food packaging, etc.; and
- Hazardous items and materials that may be removed from the MOT during the deconstruction process.

Coscol has identified several landfills in the region that have adequate capacity for materials in the first three categories. They are listed below, with their remaining capacity as reported by the California Integrated Waste Management Board's Solid Waste Information System database.

- Altamont Landfill, in eastern Alameda County – 23 years; 45 million cubic yards;

- Vasco Road Landfill – 6 years; 9 million cubic yards; and
- Keller Canyon Landfill, in eastern Contra Costa County – 21 years; 63 million cubic yards.

Each of these sites is able to accept concrete and treated wood. Treated wood must be tested prior to acceptance; treated wood from piers usually conforms to these sites' waste acceptance criteria. Although the amount of material that will be produced by the deconstruction of the MOT is quite substantial (an estimated 5,800 tons of concrete and 178 treated wood piles), this is relatively small compared to the amounts of material received by these sites on a yearly basis. For example, Altamont Landfill receives approximately 6,000 tons of refuse per day.

In review of construction drawings, and during preliminary visits to the MOT, the potential presence of a number of hazardous materials has been recognized. Formal surveys for hazardous waste would be undertaken at the beginning of the deconstruction work. The types of materials that were recognized as potentially present at the site included asbestos, lead based paint, mercury, petroleum residues, and hydraulic fluid. There are recycling or disposal options available for all of these materials at locations around the Bay Area, in California, or elsewhere in the U.S. In the course of complying with current laws and regulations regarding hazardous waste recycling and disposal, the proposed Project would make use of these options.

In summary, adequate disposal and recycling capacity exists for all of the scrap and waste materials that would reasonably be expected from this proposed Project, and would be a less than significant impact. (Class III)

- (g) For the deconstruction of the MOT, compliance with local statutes and regulations would assure compliance with State and Federal requirements. When preparing the Debris Recovery Plan required by the County for the MOT deconstruction, the proposed Project would list the facilities and service providers that would be used to handle materials from the MOT. The Plan would be reviewed and approved by knowledgeable County staff prior to issuance of the County demolition permit. This review would provide a check that the proposed Project would not use unpermitted sites or practices for the recycling and disposal of materials from the MOT.

For the work in Hercules at the onshore vault and pipelines, a Debris Recovery Plan (or similar document) is not required by the city. However, Coscol has stated in their Application to the California State Lands Commission that the concrete and soil materials removed from the onshore vault and pipeline work area would be "transported to the staging area for recycling or disposal." This should be explicitly required of the contractor that will perform the work to prevent the on-site abandonment, or other improper disposal, of concrete or soil that is

excavated during the shore side work. If the disposition of these materials is governed by the Debris Recovery Plan that was accepted for the MOT, approved disposal and recycling facilities would be used and the applicable State and Federal requirements would be satisfied.

Impact UTIL-2: Potential non-compliance with waste disposal regulations during the shore side facility abandonment. (Potentially Significant, Class II)

City of Hercules regulations do not explicitly require that the shore side facility demolition contractor properly dispose or recycle spoils from the shore side work. There is a risk that these materials could be abandoned at the shore side site, with no means for the city or Coscol to enforce proper removal.

Mitigation Measure for Impact UTIL-2:

MM UTIL-2. Explicitly Require Proper Removal in Project Specifications. Project specifications issued for bid shall include the requirement that materials removed from the onshore vault and pipeline area be transported to the staging area (i.e., the shore base) for recycling or disposal by the methods that are used for the MOT materials.

Rationale for Mitigation

Placing these requirements in the specifications that are issued for bid obligates all bidders to include the cost of proper recycling or disposal in their bid, thereby removing any economic incentive to dispose of these materials improperly and reducing this impact to less than significant.